

Fix me a glitch

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Summary

In a context of increasing technological complexity and interdependent supply chains, operational glitches are a pervasive reality of organizational life. An operational glitch happens when there is a deviation from the expected flow of materials and information and remedial actions become required. Even though operational glitches are recurrent in many industrial settings, their occurrence poses difficult managerial problems for firms. Empirical studies evidence that the occurrence of operational glitches is associated with negative outcomes, such as increased operating costs, decreased delivery reliability, reduced customer loyalty and diminished firm reputation. What is missing is an understanding of how operational glitches specifically affects manufacturers' external quality performance. Furthermore, extant literature offers little guidance on how firms can minimize the performance impact of operational glitches. In this dissertation, I contribute to the literature on operational glitches and glitch mitigation by investigating the development of transactive memory systems in the context of engineer-to-order manufacturing.

In the first manuscript, "Mitigating the Impact of Transactive Memory Systems on External Quality Failures", we examine the relationship between the frequency of operational glitches and the incidence of external quality failures. We find that firms that accept more customer change orders, that make more design errors and that experience more non-conformities during manufacturing have a higher incidence of external quality failures. This result indicates that manufacturers have a hard time shielding their external quality performance from the occurrence of different types of operational glitches. We also find that manufacturers that develop an inter-functional transactive memory system for glitch mitigation activities are better able to alleviate the negative relationship between operational glitches and external quality failures.

In the second manuscript, we look into factors that underlie the development of inter-functional glitch mitigation transactive memory systems by drawing on the Motivation-Opportunity-Ability framework. On the one hand, we find that organizational policies (role formalization, cooperation incentives and the use of project managers) positively influence the development of inter-functional glitch mitigation transactive memory systems. On the other, we show that certain individual characteristics of departmental heads also affect such development. In particular, we find that the extent to which Heads of manufacturing are networked across the firm and the extent to which they have had experience working in other departments of the firm are important determinants of the level of development of inter-functional glitch mitigation transactive memory systems.